

Work Order ID 141005-2

Tuesday, January 26, 2016 3:18:10 PM

141005

Page 1

Item ID: 646.3311

Revision ID:

Item Name: RH Half - Upper Cutter Assembly

Start Date: 1/26/2016

Start Qty: 12.00

Required Date: 1/26/2016

Req'd Qty: 12.00

Reference:

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan: M-3

Date: JAN 28 2016

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

646.3300

N/C3

110

0.09

110

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine per folio FB154

DWG REV: A/C3

FOLIO REV: AA

Blank 13.375

0.74

2- deburr and break all sharp edges

120

120

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

DAS

14

2-00

16/03/06

DAS

14

2-00

16/03/06

Work Order ID 141005

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141005

Page 2

Item ID: 646.3311 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: RH Half - Upper Cutter Assembly
 Start Date: 1/26/2016 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 1/26/2016 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							DAS
130									08
QC	Memo	0.00							9-80
Quality Control									

140	Outsource process-Anodize per QSI017 4.1.10.1	0.00							DAS
140									13
Outsource4	Memo	0.00							9-80
Outsource process - Anodize	Issue P/O to ATG : <u>31453</u>								

- 1- Black Anodize as per Dwg 646.3300
 2- PRIME AS PER DWG, SEE NOTE #2
 Certification of Comformity is required

150	Receive & Inspect for Damage & Mat'l Certs	0.00							
150									
Packaging	Memo	0.00							
Packaging									

*need to
Mr. Howard*

MAR 10 2016

16x 8p16-03-21

Work Order ID 141005

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141005

Page 3

Item ID: 646.3311 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: RH Half - Upper Cutter Assembly
 Start Date: 1/26/2016 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 1/26/2016 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
155	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 2-22
155									
QC	Memo	0.00							
Quality Control									MAR 22 2016
180	Identify as per dwg & Stock Location <u>CC1022</u>	0.00							DAS 8 2-22
180									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								MAR 22 2016
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									MAR 22 2016

MAR 22 2016

Picklist Print

Tuesday, January 26, 2016 3:18:09 PM

Page 1

Work Order ID: 141005

141005

Parent Item: 646.3311

646.3311

Parent Item Name: RH Half - Upper Cutter Assembly

Start Date: 1/26/2016

Required Date: 1/26/2016

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 12/11/27 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M7075T6B7.000X2.000

Purchased

No

f

23.1500

14.08421

14

M7075T6B7 000X2 000

7075-T6 BAR 7.000" X 2.000" (order in billets - 13.375")

Location

Loc Qty

Loc Code

MAT024

23.15

m133238

12

m133886

11.15

16/03/07

M134327 → 10.1458

M134261 → 10.1458

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY J. SOTO

DATE: 12/08/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]*

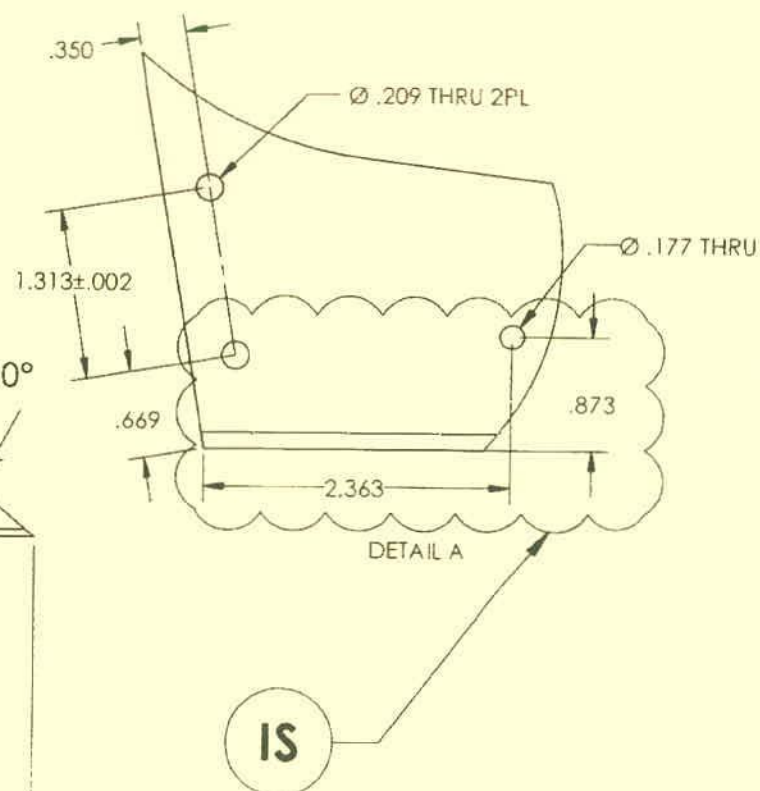
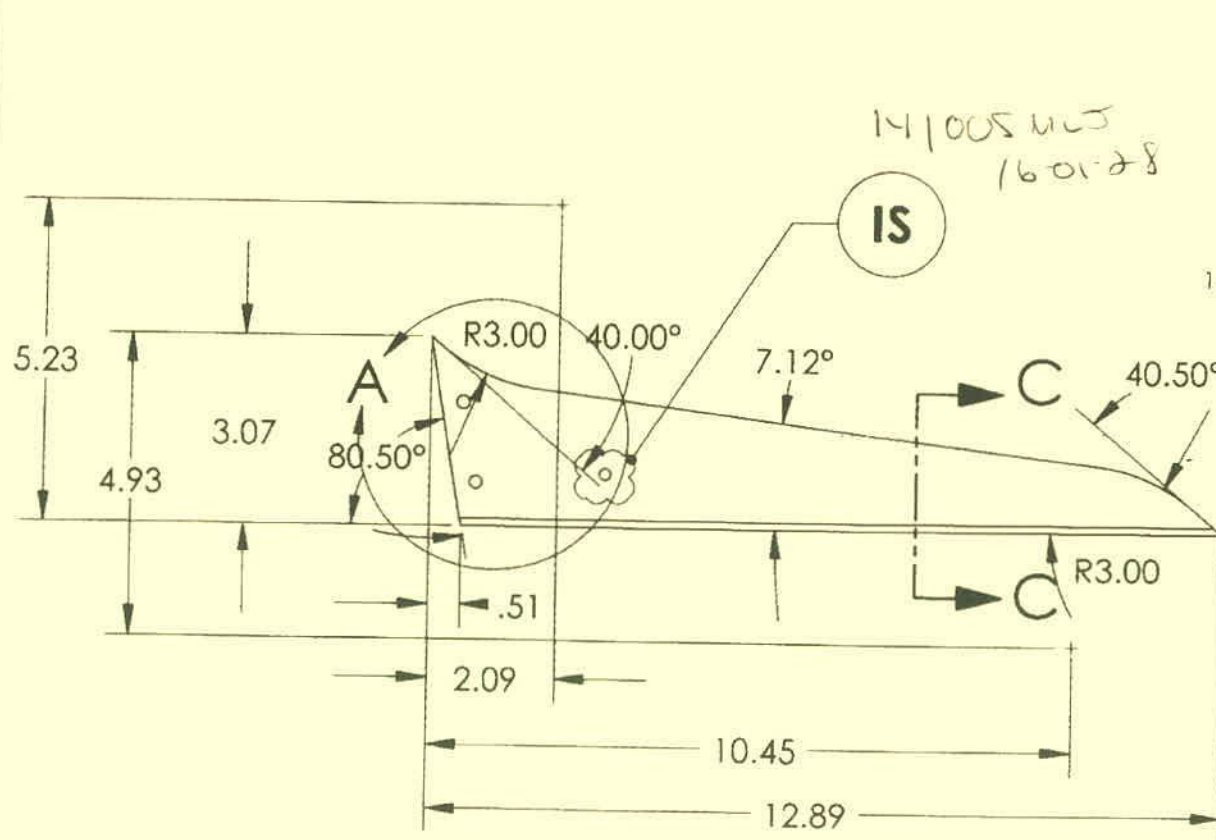
QC *[Signature]*

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

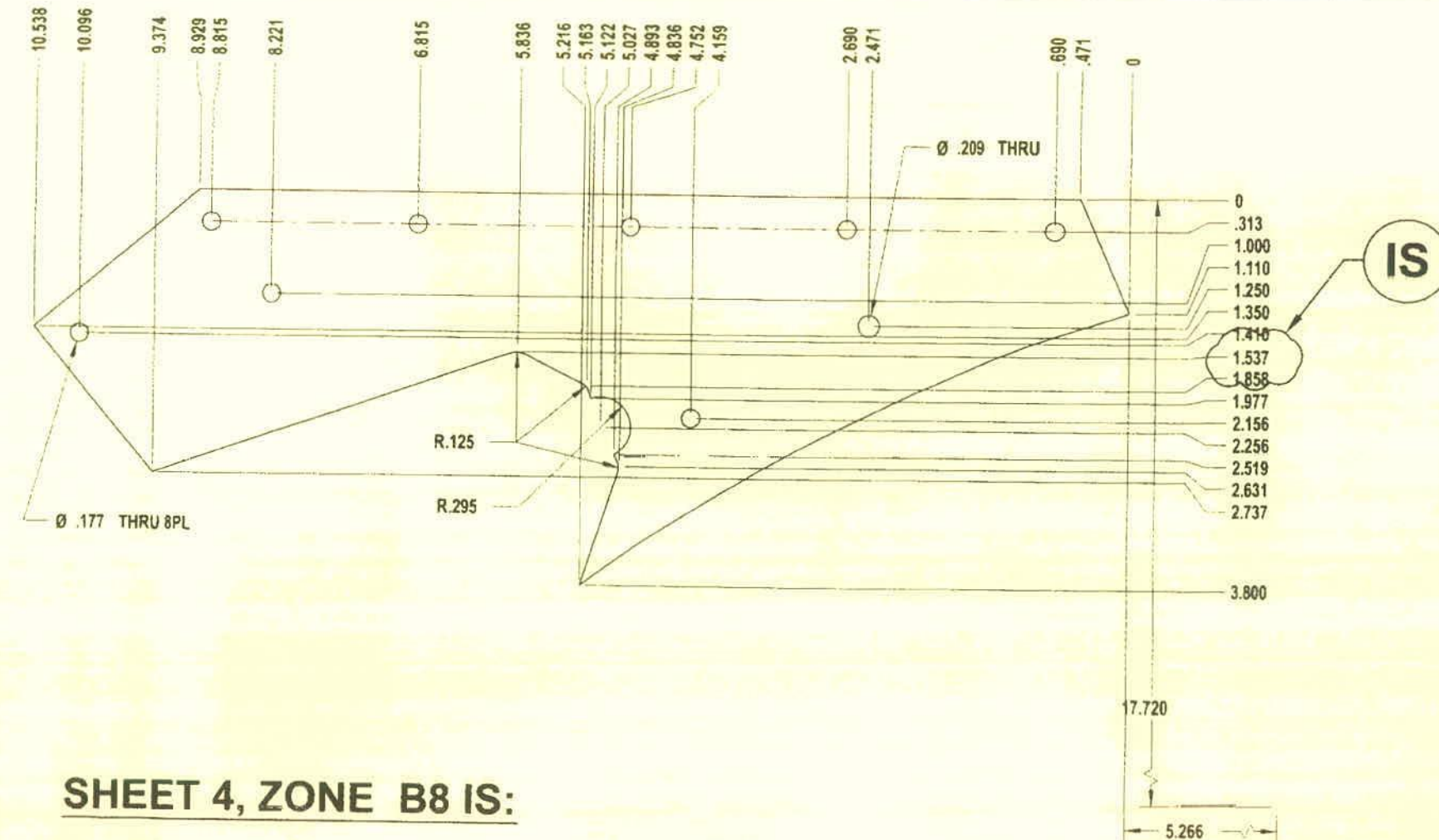
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03724				SHEET 1 OF 1	
DWG NO. 646.3300		REV: N/C	PREPARED BY B. PETERS	DATE: 12/05/12	EFFECT ON DWG ☐ INC. ☒ UNINC.
DWG TITLE: UPPER CUTTER ASSY					
APPROVED BY:	ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
REASON: REVISED ORDINATE DIMENSION.				ECR: D-12-025	

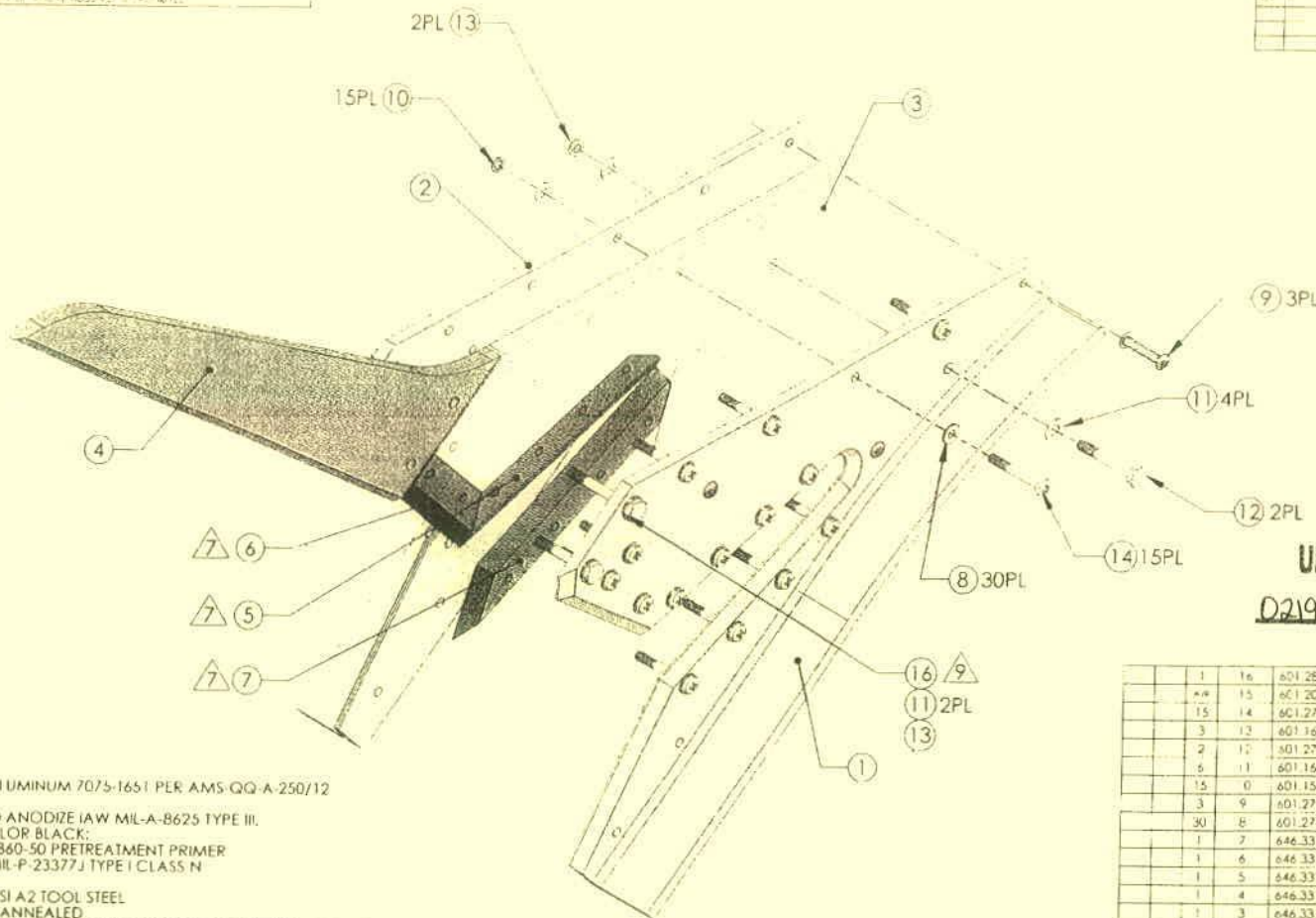


SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:	☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO
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C PART NUMBER	QTY	DESCRIPTION	MATERIAL / SPECIFICATION

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE
 ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE
 ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE



NOTES:

- 1 MATERIAL: ALUMINUM 7075-T6 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL; CONDITION: ANNEALED; POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF T/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP. DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

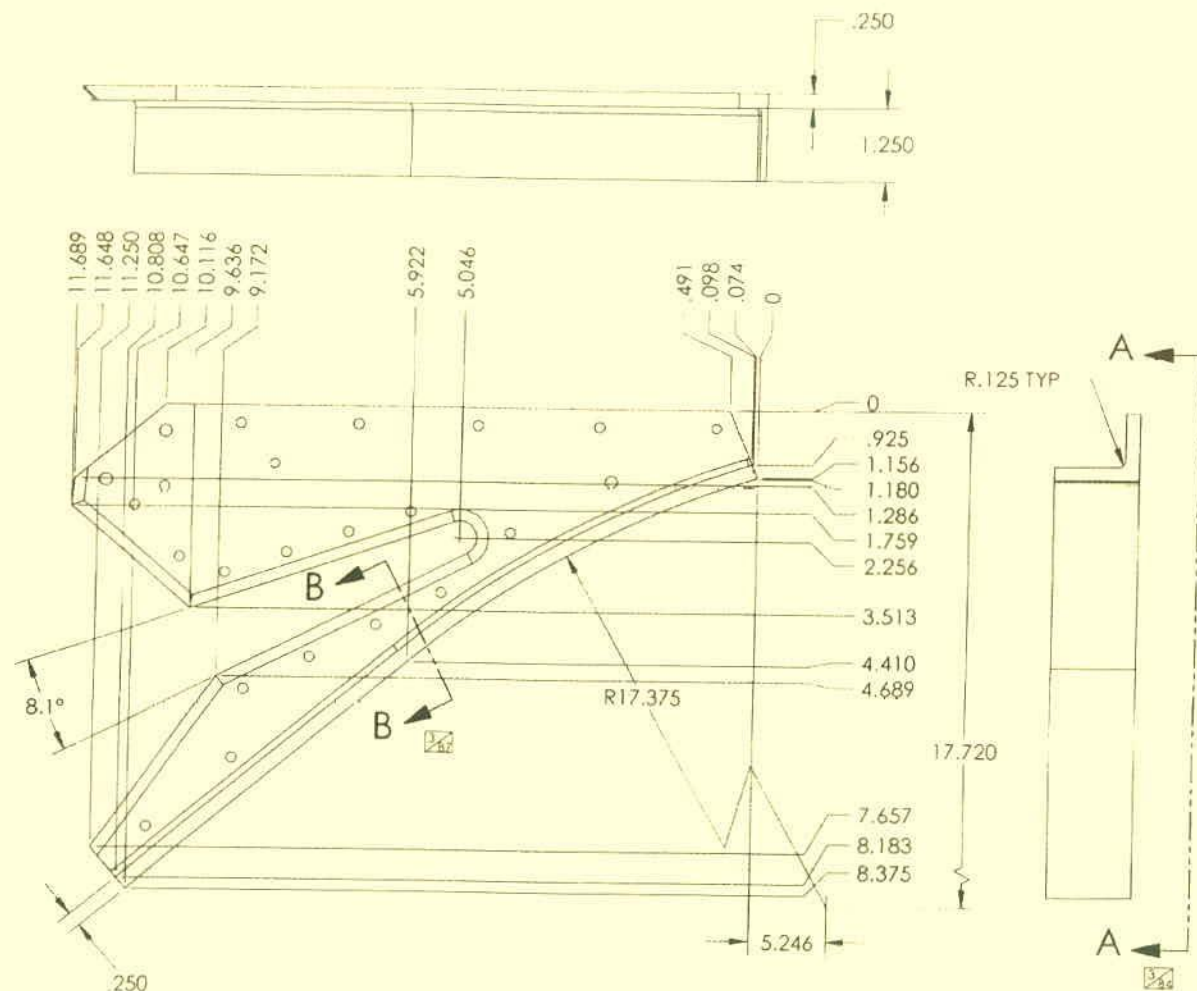
646.3301
SHOWN EXPLODED

UNINCORPORATED ECN(S)

02196, 03724, 04765

QTY	FIG #	PART #	DESCRIPTION	MATL	SPEC.
1	16	601.2834	BOLT		
15	15	601.2045	RTV. LOCTITE 598		
15	14	601.2765	SCREW	WATERPROOF	
3	12	601.1624	LOCKNUT	WATERPROOF	
2	10	601.2763	BOLT	WATERPROOF	
5	11	601.1607	WASHER	WATERPROOF	
15	0	601.1541	LOCKNUT	WATERPROOF	
3	9	601.2766	RIVET	WATERPROOF	
30	8	601.2764	WASHER	WATERPROOF	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	646.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1	1	646.3301	UPPER CUTTER ASSY		
PARTS LIST					
APICAL INDUSTRIES					
2608 TRAMBLE HEIGHTS DR.					
OCEANSIDE, CA. 92056-3512 (760)724-5300					
UPPER CUTTER ASSY					
646.3300					
SCALE: NONE					
SHEET 1 OF 1					

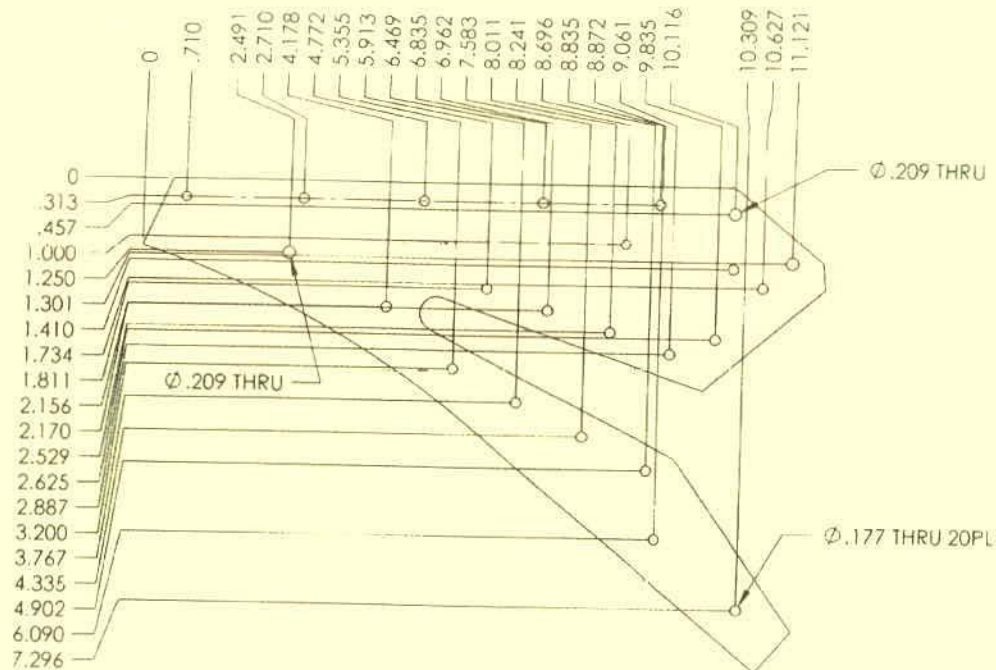
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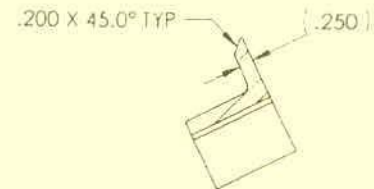
646.3310 SHOWN
646.3311 OPPOSITE

APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3522 (760) 724-5300	
UPPER CUTTER ASSY	
PART NO. 646.3300 REV. 001 SCALE: NONE	SHEET 2 OF 2

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES
 ALL DIMENSIONS ARE BASED ON THE CENTERLINE UNLESS OTHERWISE SPECIFIED
 DIMENSIONS IN PARENTHESES ARE ALTERNATE DIMENSIONS



SECTION A-A

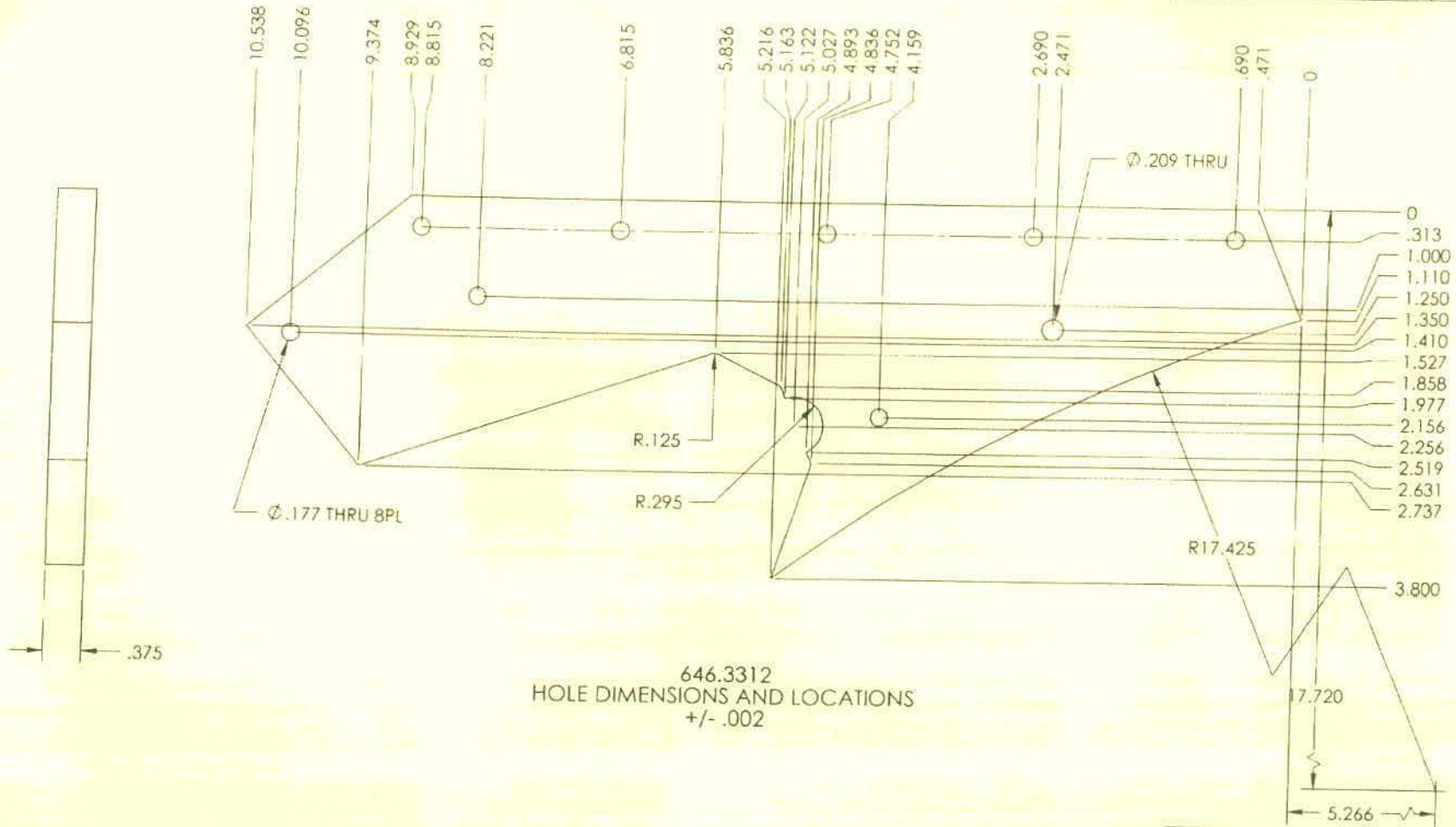


SECTION B-B

CATALOG NO. PART NO. DRAWING NO. REV. NO.		APICAL INDUSTRIES 2660 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92064-3572 1/80/124 2,500	
UPPER CUTTER ASSY		646.3300	
SCALE: 1/8" = 1"		1 SHEET 1 OF 2	

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES
 APICAL INDUSTRIES AND ITS AFFILIATES SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE DIMENSIONS AND LOCATIONS OF THE FEATURES SHOWN ON THIS DRAWING

NO.	REVISION	DATE	BY

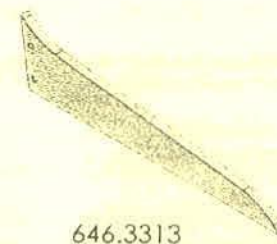
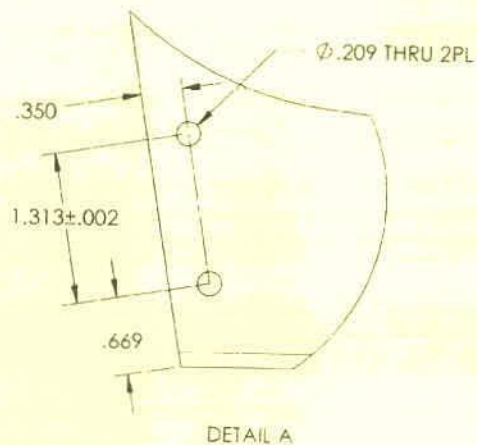
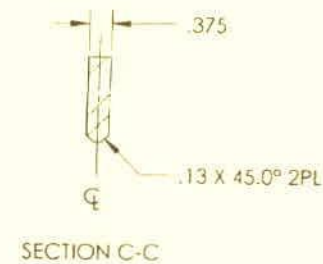
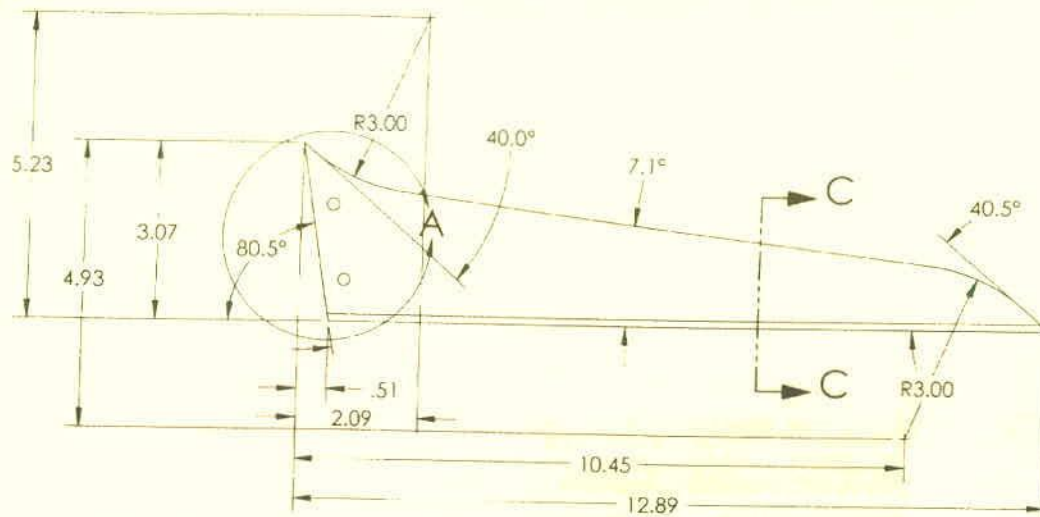


646.3312
 HOLE DIMENSIONS AND LOCATIONS
 +/- .002

APICAL INDUSTRIES 2606 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-35-2 (760) 724-5300	
UPPER CUTTER ASSY	
PART NO. 646.3300 QUANTITY 1	REV. 1 DATE 1/1/00

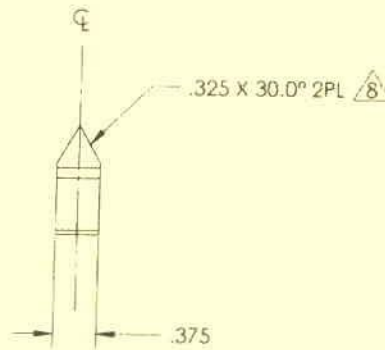
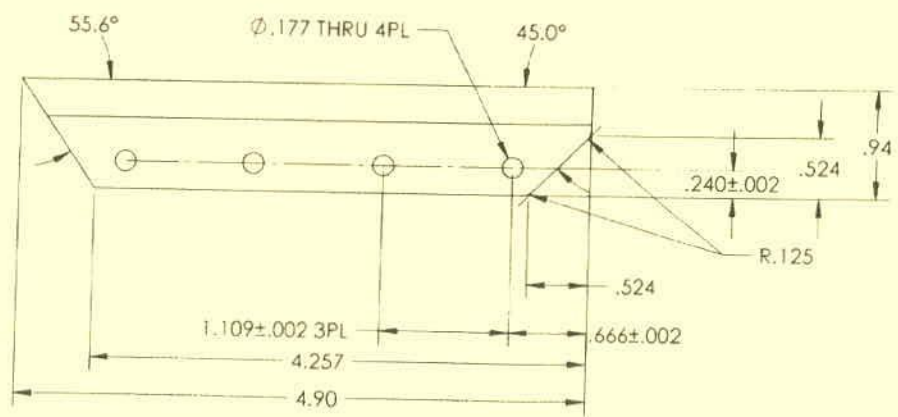
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES.
FRACTIONS SHALL BE SHOWN AS DECIMALS TO TWO PLACES.
THE FOLLOWING DIMENSIONS ARE IN MILLIMETERS:

REV	DATE	BY	CHKD



APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR OCEANVILLE, CA 95066-3512 (708) 724-5300			
UPPER CUTTER ASSY			
REV	DATE	BY	CHKD
0	07/01/85	646.3300	
SCALE: NONE		SHEET 5 OF 6	

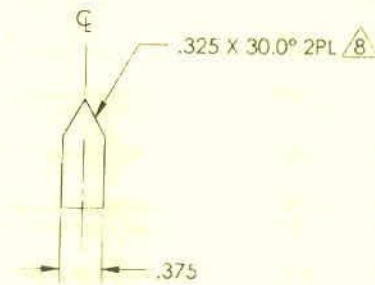
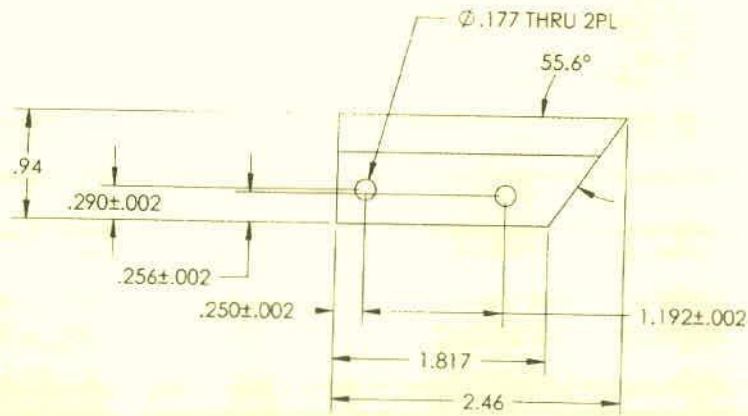
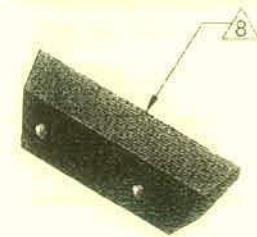
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COMPANY: GALT JOB NO.: 100-200 PROJECT: 100-200 DATE: 10-1-88 DRAWN BY: J. J. J. CHECKED BY: J. J. J. SCALE: 1" = 10'	APICAL INDUSTRIES 2808 TEMPLE HEIGHTS DR OCEANSIDE, CA 92054-3512 (760)774-5300
PARTIAL CROSS SECTION INTERIOR: 100-200 EXTERIOR: 100-200 INTERIOR: 100-200 EXTERIOR: 100-200	UPPER CUTTER ASSY 1" SCALE: 1" = 10' (100-200) 646.3300 SCALE: 1" = 10' (100-200)

APICAL INDUSTRIES, INC. 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5000
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE TO BE HONED UNLESS OTHERWISE SPECIFIED

REV.	DESCRIPTION	DATE	APPROVED

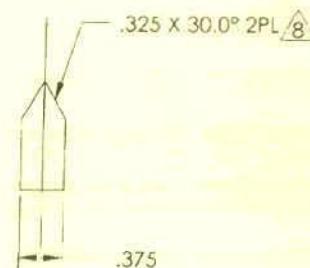
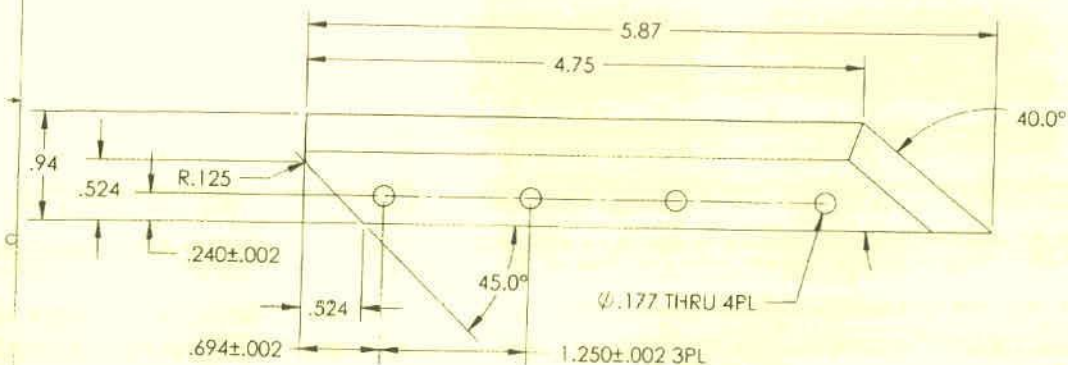
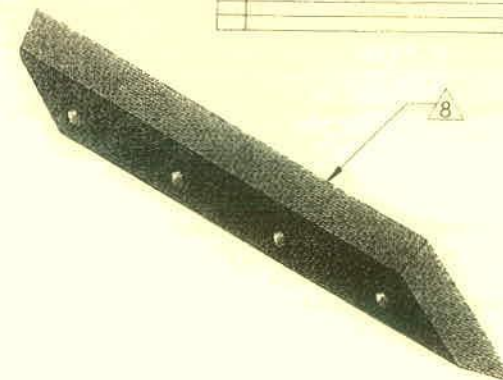


646.3315

APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5000	
UPPER CUTTER ASSY	
REV.	646.3300
DATE	07/15/05
SCALE	1:1
SHEET 1 OF 1	

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES
 ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED

REV	DESCRIPTION	DATE	BY



646.3316

DRAWN: [blank] CHECKED: [blank] DATE: [blank] DRAWING APPROVAL: [blank] DESIGNED: [blank] CUST. NO.: [blank]	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300 UPPER CUTTER ASSY PART NO. 646.3300 QTY. 1 SCALE: 1:1 SHEET 1 OF 1
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO31653

Purchase Order Date 3/10/2016

PO Print Date 3/10/2016

Page Number 1 of 4

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

MAR 10 2016

Contact Name
Vendor Phone 613-446-4544

Ship To Contact
Ship To Phone
Ship Via: VENDOR'S TRUCK
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	136507 ✓	646.3313 UPPER GUIDE REV. N/C	3/15/2016		20.00 ✓	\$13.10	\$262.00

Yes

3/15/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

RUSH PART REQUIRED 7 PCS FOR NEXT TUESDAY

Line Total: \$262.00

2	141005 ✓	646.3311 UPPER CUTTER ASSEMBLY REV. N/C	3/15/2016		20.00	\$18.10	\$362.00
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Yes

3/15/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

RUSH PART REQUIRED 4 PCS FOR NEXT TUESDAY

Line Total: \$362.00

Note:

3/10/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 911422

Date: 21-Mar-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
16 ea	Part: 646.3311 UPPER CUTTER ASSEMBLY Job: 19259	Rev: N/C PO: PO31653	Line: 2 <i>SP16 03-21</i>
11 ea	Part: 646.3310 CUTTER ASSEMBLY Job: 19266	Rev: N/C PO: PO31653	Line: 3
8 ea	Part: 646.3312 CENTER PLATE Job: 19267	Rev: N/C PO: PO31653	Line: 4
5 ea	Part: 646.3812 GUSSET BRACKET Job: 19268	Rev: N/C PO: PO31653	Line: 5
8 ea	Part: D5155-9 CO-PILOT CO-PILOT Job: 19269	Rev: B PO: PO31653	Line: 7
DATE: <u>21/3/16</u> CERTIFIED SIGNATURE: <u><i>[Signature]</i></u> RECEIVER SIGNATURE: _____ Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. CERTIFICATE OF CONFORMANCE A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO			



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 911422

Date: 21-Mar-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE

Terms		Ship Via
Quantity	Description	
	REQUIREMENTS.	
	MADE IN CANADA.	
	<i>SP16-03-01</i>	